

## DEET & HOW TO AVOID MOSQUITO BITES -- INFORMATION

When dealing with West Nile virus, prevention is your best bet. Fighting mosquito bites reduces your risk of getting this disease, along with others that mosquitoes can carry.

The hours from dusk to dawn are peak mosquito biting times for many species of mosquitoes. Take *extra* care to use repellent and protective clothing during evening and early morning -- or consider avoiding outdoor activities during these times.

Centers for Disease Control and Prevention (CDC) advises to **Apply Insect Repellent Containing DEET** (Look for: *N,N-diethyl-meta-toluamide*) to exposed skin when you go outdoors. DEET is the most effective and best-studied insect repellent available. (Fradin, 1998). Studies using humans and mosquitoes report that among those tested only products containing DEET offer long-lasting protection after a single application. (Fradin and Day, 2002)

Some non-DEET repellent products which are intended to be applied directly to skin also provide some protection from mosquito bites. However, studies have suggested that other products do not offer the same level of protection, or that protection does not last as long as products containing DEET. (Refer to links below with articles on comparative insect repellents study.)

People should choose a repellent that they will be likely to use consistently and that will provide sufficient protection for the amount of time that they will be spending outdoors. Product labels often indicate the length of time that protection that can be expected from a product. Persons who are concerned about using DEET may wish to consult their health care provider for advice.

After completing a comprehensive re- assessment of DEET, which has been used worldwide since 1957, the Environmental Protection Agency (EPA) concluded that, as long as consumers follow label directions and take proper precautions, insect repellents containing DEET do not present a health concern. Human exposure is expected to be brief, and long-term exposure is not expected. Based on extensive toxicity testing, the Agency believes that the normal use of DEET does not present a health concern to the general population.

**A soybean-oil-based product** has been shown to provide protection for a period of time similar to a product with a low concentration of DEET (4.75%) (Fradin and Day, 2002: <http://content.nejm.org/cgi/content/full/347/1/13>).

### Use this product instead of DEET if:

- You have had allergic skin reactions in the past to products containing DEET.
- If you have irritated, sunburned, bruised, or broken skin.
- If you have a skin condition such as skin cancer, dermatitis, acne, eczema, or psoriasis.

If you are outdoors for periods longer than 90 minutes, or if you start being bitten by mosquitoes, you will need to re-apply this product to continue to provide protection against mosquito bites.

### **Risks of Using Repellents Containing DEET**

**Use of these products may cause skin reactions in rare cases.** If you suspect a reaction to this product, discontinue use, wash the treated skin, and call your local poison control center. There is a new national number to reach a Poison Control Center near you: 1-800-222-1222.

**If you go to a doctor, take the product with you.** Cases of serious reactions to products containing DEET have been related to misuse of the product, such as swallowing, using over broken skin, and using for multiple days without washing skin in between use, for example.

**Whenever possible, wash skin between applications of DEET.** Always follow the instructions on the product label.

### **LINKS TO MORE INFORMATION ON INSECT REPELLENTS:**

<http://www.epa.gov/pesticides/factsheets/chemicals/deet.htm>

<http://npic.orst.edu/factsheets/DEETgen.pdf>

[http://www.cdc.gov/ncidod/dvbid/westnile/qa/insect\\_repellent.htm](http://www.cdc.gov/ncidod/dvbid/westnile/qa/insect_repellent.htm)

For comparative efficacy of insect repellents against mosquito bites:

<http://www.jhu.edu/~shcenter/mosquitobites.html>

<http://content.nejm.org/cgi/content/full/347/1/2>

<http://content.nejm.org/cgi/content/full/347/1/13>